TABLE 60

Foreign total employment, R&D employment, and level of education of researchers, by activity, industry, and company size: 2019

(Thousands)

Industry and company size All industries	NAICS code 21-23, 31-33, 42-81	Total employment			Researchersa				R&D technicians		
				Total R&D employment		Total		With PhD		and equivalent staff	Other R&D
		11,083		844		584		36	188	72	
Manufacturing industries	31-33	7,429		447		351		25		60	36
Food	311	573	T	12		9		*		2	1
Beverage and tobacco products	312	458		3		2		1		1	*
Textile, apparel, and leather products	313-16	181		1		1		*		1	*
Wood products	321	11		*		*		*		*	*
Paper	322	114	T	2		2		*		*	*
Printing and related support activities	323	43	i	*	i	*	i	0		*	*
Petroleum and coal products	324	64	\top	3		1		*		2	*
Chemicals	325	988		70		46		7		11	12
Basic chemicals	3251	115		6		3		1		3	*
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	74		4		2		*		1	*
Pesticide, fertilizer, and other agricultural chemicals	3253	31		2		1		*		1	1
Pharmaceuticals and medicines	3254	421		45		31		5		4	10
Soap, cleaning compound, and toilet preparation	3256	214		6		5		1		*	*
Paint, coating, adhesive, and other chemicals	3255, 3259	134		7		5		*		1	*
Plastics and rubber products	326	199		6		3	i	*	i	3	1
Nonmetallic mineral products	327	67	i	1	i	*	i	*	i		*
Primary metals	331	83		1	-	*	Ť	*	i	*	*
Fabricated metal products	332	171		2		2		*	_	*	*
Machinery	333	729		43		36		1		4	3
Agricultural implement	33311	80		9		7		*	i	1	*
Semiconductor machinery	333242	59		8		7		*	_	1	*
Engine, turbine, and power transmission equipment	3336	112		5		5		*		*	*
Other machinery	other 333	478		22		17	i	*		2 i	2
Computer and electronic products	334	1,358		182		153		8	i		12
Communications equipment	3342	114		32		27		*	i		3
Semiconductor and other electronic components	3344	581		85		78		5	i		2
Navigational, measuring, electromedical, and control instruments	3345	384		35	i	27	i	3	i	5 i	3
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	85		8	i	5	i	1	i	2 i	1
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	102		7	i	6	i	*		1	1
Other measuring and controlling device	other 3345	196		20		16		2		2 i	1
Other computer and electronic products	other 334	279	\dagger	30		22		1	i		4
Electrical equipment, appliances, and components	335	458		23	i	19	i	3	i		1
Transportation equipment	336	1,280	\top	72		60		3		8	4
Motor vehicles, bodies, trailers, and parts	3361-63	1,080	\dagger	61		50		2		7	4
Aerospace products and parts	3364	130	\dagger	8		7		*		1	*
Aircraft, aircraft engine, and aircraft parts	336411-13	130	+	8		7	Н	*		1	*
Guided missile, space vehicle, and related parts	336414-15, 336419	*		*		*		0		0	0

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(Thousands)

Industry and company size	NAICS code	Total		Total R&D				With		R&D technicians and equivalent		Other R&I
		employm	ent	employment		Total		PhD		staff		staff
Military armored vehicle, tank, and tank component	336992	*	i	0		0		0		0		0
Other transportation	other 336	70		3	i	2	i	*	i	*	i	*
Furniture and related products	337	25		*		*		0		*		*
Miscellaneous	339	630		26		17		1		7		2
Medical equipment and supplies	3391	492		23		16		1		6		1
Other miscellaneous manufacturing	3399	137		3		2	i	*	i	1		*
Nonmanufacturing industries	21-23, 42-81	3,654		396		233		10	i	128		36
Mining, quarrying, oil and gas extraction, and support activities	21	211		11	i	3	i	*		5	i	2
Utilities	22	12		0 - 12		0 - 2		*		0 - 12		*
Wholesale trade	42	48		2		0 - 3		1		0 - 2		*
Electronic shopping and electronic auctions	454111-12	3 - 595		3 - 52		0 - 27		0		0 - 27		4
Transportation and warehousing	48-49	310		1	i	*		*	i	*	i	*
Information	51	936		174		122		4		36		16
Publishing	511	241		71		52		2	i	14		6
Newspaper, periodical, book, and directory publishers	5111	*		*		*		0		*		0
Software publishers	5112	241		71		52		2	i	14		6
Telecommunications	517	77		1		1		*	i	*		*
Data processing, hosting, and related services	518	471		75		50		1	i	16		9
Other information	other 51	147		27		20		2		6		1
Finance and insurance	52	364		17		8		*	i	5		3
Real estate and rental and leasing	53	5		*		*		*		*		0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	*		*		*		*		*		0
Other real estate and rental and leasing	other 53	5		*		*		0		0		0
Professional, scientific, and technical services	54	1,175		142		75		5	i	57	į	10
Architectural, engineering, and related services	5413	140		1		1		*		*		*
Computer systems design and related services	5415	586		55		48		1	i	4		3
Scientific research and development services	5417	118	i	80		23		2	i	52	į	6
Research and development in biotechnology	541711	31		29		12		1		16		*
Research and development in the physical, engineering, and life sciences (except biotechnology)	541712	87	i	51	i	10		2	i	35	i	6
Research and development in the social sciences and humanities	541720	*		*		*		0		0		*
Other professional, scientific, and technical services	other 54	330	i	6		4	i	1	i	1	i	1
Health care services	621-23	3		*		*		*		*		*
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55- 56, 624, 71-72, 81	0 - 591		0 - 49		0 - 27		*	i	0 - 27		*
All companies (number of domestic employees)	_	11,083		844		584		36		188		72
Small companies								Ė				

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(Thousands)

Industry and company size		Total employment		Total R&D employment		Researchersa		sa	technicians and equivalent		
	NAICS code							th nD			Other R&D
10-19 ^b	-	4		2		1	,	П	*	i	*
20-49	_	69		9		5	1		3		1
Medium companies											
50-99	_	67		10		6	1		3		1
100-249	_	256		23		17	1		4		2
Large companies											
250-499	_	231		25		20	1	i	4		1
500-999	_	343		34		18	1		13		3
1,000-4,999	_	1,721		149		112	6		26		11
5,000-9,999	_	1,294		97		69	5	i	18	i	11
10,000-24,999	_	2,764		198	i	116	8	i	67	i	15
25,000 or more	_	4,334		298		221	12		49		28

^{* =} amount < 500 employees; i = > 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

Note(s):

Detail may not add to total because of rounding. Industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned. Beginning in survey year 2018, statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D. This change has affected the comparability of these estimates with estimates published for years prior to 2018. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2019.

^a Researchers include R&D scientists and engineers and their managers.

^b The Business Enterprise Research and Development Survey does not include companies with fewer than 10 domestic employees.